REMARKS/ARGUMENTS

Reconsideration is requested in view of the following remarks. Claim 1 has been editorially revised to include the limitations of claim 21 and to claim a useful, concrete and tangible result as described for one embodiment in paragraph [0036] of the specification. Claim 21 has been canceled and claim 22 has been editorially revised to now depend from claim 1. Claim 24 has been editorially revised to include the limitations of claim 25 and to claim a useful, concrete and tangible result as described for one embodiment in paragraph [0036] of the specification. Claim 25 has been canceled. Claims 1-20, 22-24 and 26-30 remain under consideration in the present application.

Claim Rejections – 35 USC §101

Claims 1-30 are rejected under 35 U.S.C. §101 as failing to produce a real life, real world, useful, concrete and tangible result. Applicants respectfully traverse this rejection.

Claim 1 is directed to a method for determining a one-dimensional gap stack-up for a gap within an assembly of parts, the method including determining at least one of a dimension and a tolerance for each one of a plurality of elements, and providing a list of each one of the plurality of elements and the at least one of the dimension and the tolerance associated therewith in a spreadsheet format to allow correction of tolerance values associated with an out-of-tolerance gap prior to completing the assembly of parts.

Claim 1 recites a practical application to allow correction of tolerance values associated with an out-of-tolerance gap prior to completing the assembly of parts. This practical application further produces a real-world result that is repeatable, and so also recites a tangible and concrete result.

For at least these reasons, claim 1 meets the requirements of 35 U.S.C. §101 and is patentable. Claims 2-20 and 22-23 are also patentable since they depend ultimately from claim 1 that is allowable.

Claim 24 is directed to a method for determining a vector loop within an assembly of parts, the method comprising (a) identifying a loop from-face of a first part and a loop to-face of a second part of the assembly of parts, wherein the vector loop extends

therebetween; (b)   identifying parts in contact at a contact face within the assembly of parts, wherein a normal to the contact face is collinear with the vector loop, and wherein each identified part comprises a part from-face and a part to-face, and wherein the vector loop extends from the loop from-face of the first part, through the from-face and the to-face of each succeeding part in contact at the contact face, to the loop to-face of the second part; and (c)   for each part identified in the step (b), determining at least one of a dimension and a tolerance between the loop from-face and the loop to-face to allow correction of tolerance values associated with an out-of-tolerance gap prior to completing the assembly of parts.

Claim 24 recites a practical application to allow correction of tolerance values associated with an out-of-tolerance gap prior to completing an assembly of parts. This practical application further provides a real-world result that is repeatable, and so also recites a tangible and concrete result.

For at least these reasons, claim 24 meets the requirements of 35 U.S.C. §101 and is patentable. Claims 26-27 are also patentable since they depend ultimately from claim 24 that is allowable.

Claim 28 is directed to a computer program product for performing a one-dimensional gap stack-up for a gap within an assembly of parts, the computer program product comprising:

a storage medium readable by a computer processor and storing program code for execution by the computer processor, the program code comprising:

a program code module for identifying a gap for stack-up analysis;

a program code module for identifying a first surface and a second surface defining the gap, wherein a first part of the assembly of parts comprises the first surface and a second part of the assembly of parts comprises the second surface; and

a program code module for determining a vector loop comprising a plurality of elements from the first surface through the assembly of parts to the second surface, wherein the plurality of elements comprise the gap stack-up.

Claim 28 recites a practical application by physical transformation. A claimed computer program product includes a storage medium. The claimed storage medium is

physically transformed by storing program code for execution by a computer processor. The claimed program code includes a plurality of program code modules defined by claim 28.

For at least these reasons, claim 28 meets the requirements of 35 U.S.C. §101 and is patentable since it transforms an article or physical object (storage medium) to a different state or thing. (See MPEP §2106). Claims 29 and 30 are also patentable since they depend ultimately from claim 28 that is allowable.

Claims 21 and 25 have been canceled, thus rendering these claim rejections now moot.

Favorable reconsideration in the form of a Notice of Allowance is requested. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at (507) 351-4450.

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PATENT TRADEMARK OFFICE

Respectfully submitted,

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